

REMARKS

Elections/Restrictions

In the Office Action dated 1 August 2003, the Examiner states that "Claim 27 is generic to Species I, II, and III, with species I elected without traverse. Presently, claim 27 is the only claim pending for consideration." However, Applicant respectfully submits that election was made **with** traverse in Paper No. 9. Therefore, Applicant respectfully submits that the instant application should proceed to examination of all of the claims 26-32 in a single application because: (1) claim 27 is generic to Species I, II, and III; (2) the remaining claims, claims 26 and 28-32 represent a reasonable number of species which are entitled to remain in the application with the generic claim 27; and (3) election was made **with** traverse.

In a telephone conversation with the Examiner on 11 August 2003, the Examiner agreed that the restriction to Claim 27 was an error. The Examiner also noted that the next Office action issued will be a non-final action because of this restriction error. The Examiner instructed that this response be filed to identify this restriction error and to also respond substantively to the rejections of claim 27.

35 USC §112 Rejection

Claim 27 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner held that the scope of claim 27 is not clearly defined. For the purposes of examination, the Examiner has held that a "chip scale packaged die" is a die without a package outline that can be seen from above as being "on the order of the die".

For the purposes of examination, the Examiner has held that "having no substrate" is interpreted as meaning "having no chip carrier" such as tape, film, ceramic, etc. Rigid electrical lead structures that are a stand-alone, such as part of a lead frame are considered as being "a substrate." . Applicant respectfully cites to the specification to clarify the meaning of "substrate" and thus the terminology "having no substrate". As described on page 2, beginning at line 22, "[T]he unique feature of most CSPs is the use of a substrate to redistribute the very fine-pitch of the peripheral pads on the chip to a much larger pitch of the pads on the substrate . . . However, it is often desirable to mount a memory chip directly onto a board. With the CSP, the chip is already mounted to a substrate such that the ability to

directly mount the chip to a board is lost. Thus the need exists for a CSP that provides all of the advantages of the CSP but without the need for a substrate." (Spec., page 2, lines 22-31). It is respectfully submitted that when the claims are read in view of the specification, no ambiguity is present.

35 USC §102 Rejection

Claim 27 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Sawai et al. (U.S. Pat. No.: 5,710,062). Specifically, the Examiner stated:

Sawai et al. disclose "a chip scale packaged die" (col. 1, lines 13-14) having no substrate (as seen in Figs. 1-2, 6, 17, etc.).

It is respectfully submitted that Sawai et al. discloses a chip scaled package with a substrate. As described on page 2, lines 22-24 of the present application, "[T]he unique feature of most CSPs is the use of a substrate to redistribute the very fine-pitch of the peripheral pads on the chip to a much larger pitch of the pads on the substrate." Applicant respectfully submits that this is what is disclosed in Sawai et al. Specifically, Sawai et al. discloses a "semiconductor chip 1 with pad electrodes 2 each functioning as part of an electrode for external connection." (col. 9, lines, 27-31). However, Sawai et al. does not connect the pad electrodes 2 directly to the printed circuit board. Rather, Sawai et al. discloses the use of "a plurality of external connection conductors 5 located in the main surface of a molding resin 6. When the plastic molded semiconductor package 13 is mounted on a printed board or the like, the external connection conductors are electrically connected to electrodes formed on the printed board." (Col. 9, lines 16-19). As disclosed in the present application specification, with known CSP's, the chip is already mounted to a substrate such that the ability to directly mount the chip to a board is lost. (page 2, lines 29-30). Thus, it is respectfully submitted that Sawai et al. fails to disclose or teach "a chip scale packaged die having no substrate".

For the reasons discussed above, it is believed that claim 27 is in condition for allowance. Accordingly, it is respectfully requested that the rejection of claim 27 pursuant to 35 U.S.C. §102(b) be withdrawn.

Claims 26, and 28-32, represent species which are allowable for the same reasons as generic claim 27 is allowable. For the reasons discussed above in conjunction with claim 27, it is believed that claims 26 and 28-32 are in condition for allowance.

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Reply to Office action of 1 August 2003

Applicants have made a diligent effort to place the claims in condition for allowance. Accordingly, a Notice of Allowance for claims 26-32 is respectfully requested. If the Examiner is of the opinion that the instant application is in condition for disposition other than through allowance, the Examiner is respectfully requested to contact applicants' attorney at the telephone number listed below so that additional changes may be discussed.

Respectfully submitted,



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